Clone DB

Repository for DNA clones with integrated information on sequences, maps and distributors

http://www.ncbi.nlm.nih.gov/clone/

National Center for Biotechnology Information • National Library of Medicine • National Institutes of Health • Department of Health and Human Services

Scope and Access

Clone DB is an Entrez database from NCBI that replaces and expands upon the former Clone Registry to represent a broader range of eukaryotic organisms and clone types. Clone DB integrates information about clones and their source libraries, including sequence data, genome map positions and distributor information. This consolidation provides a more comprehensive view of clone-associated data and makes clone selections for various experimental purposes a straightforward process. Clone DB has records for genomic and cell-based (gene-trap and gene-targeting) libraries and clones representing more than 100 different eukaryotic taxa. Several venues are available for accessing data from CloneDB:

- Text searching via the Clone DB homepage   https://www.ncbi.nlm.nih.gov/clone/
- Bulk download from the clone FTP site   ftp://ftp.ncbi.nih.gov/repository/clone/
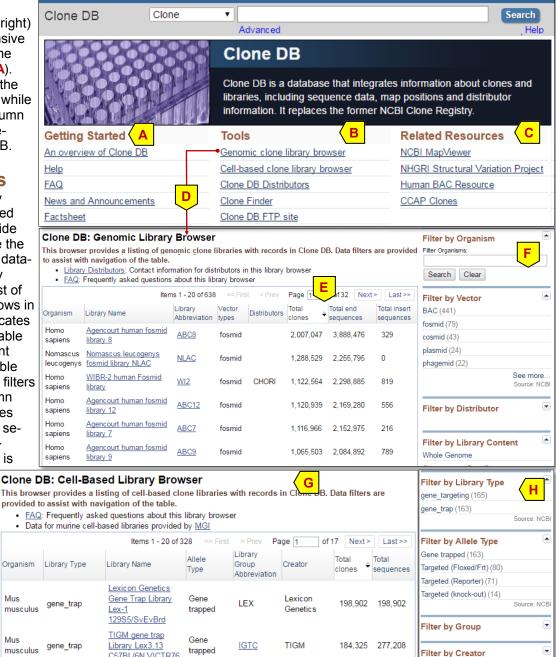- Locating clones via CloneFinder   https://www.ncbi.nlm.nih.gov/mapview/mvhome/clonehome.html

The Homepage

The Clone DB homepage (right) provide links to comprehensive online help documents in the "Getting Started" column (**A**). The Tools column (**B**) lists the tools specific to Clone DB, while the Related Resources column (**C**) lists representative resources related to Clone DB.

Browsing Records

The "Genomic clone library browser" and the "Cell-based clone library browser" provide convenient ways to browse the libraries available from the database. The Genomic Library Browser (**D**) displays the list of libraries in a table. The arrows in the column header (**E**) indicates the attribute by which the table is sorted. Clicking a different column header sorts the table by that attribute. Additional filters (**F**) in the right-hand column allows you to restrict libraries displayed to those with the selected properties. The Cell-Based Library Browser (**G**) is similar to that of the Genomic Library Browser. The library attributes (column headers) and the filters (**H**, shown in part) are specific to the library types. The search examples shown in subsequent pages are from genomic clone data. Similar library and clone records also exist for cell-based clones.
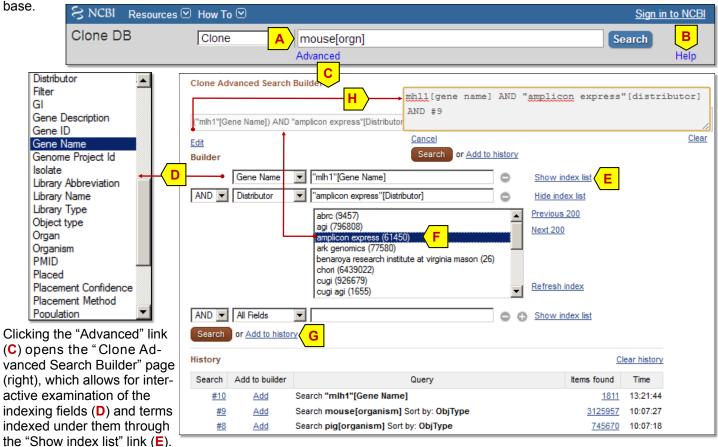
Clone DB homepage

NCBI   Resources ⊡   How To ⊡   Sign in to NCBI

Clone DB   [Clone ▾]   [_____]   **Search**

Advanced   Help

Clone DB

Clone DB is a database that integrates information about clones and libraries, including sequence data, map positions and distributor information. It replaces the former NCBI Clone Registry.

Getting Started (A)	Tools (B)	Related Resources (C)
An overview of Clone DB	Genomic clone library browser	NCBI MapViewer
Help	Cell-based clone library browser	NHGRI Structural Variation Project
FAQ	Clone DB Distributors	Human BAC Resource
News and Announcements	Clone Finder	CCAP Clones
Factsheet	Clone DB FTP site	

Clone DB: Genomic Library Browser

This browser provides a listing of genomic clone libraries with records in Clone DB. Data filters are provided to assist with navigation of the table.

- **Library Distributors**: Contact information for distributors in this library browser
- **FAQ**: Frequently asked questions about this library browser

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Organism	Library Name	Library Abbreviation	Vector types	Distributors	Total clones	Total end sequences	Total insert sequences
Homo sapiens	Agencourt human fosmid library 8	ABC8	fosmid		2,007,047	3,888,476	329
Nomascus leucogenys	Nomascus leucogenys fosmid library NLAC	NLAC	fosmid		1,288,529	2,255,795	0
Homo sapiens	WIBR-2 human Fosmid library	WI2	fosmid	CHORI	1,122,564	2,298,885	819
Homo sapiens	Agencourt human fosmid library 12	ABC12	fosmid		1,120,939	2,169,280	556
Homo sapiens	Agencourt human fosmid library 7	ABC7	fosmid		1,116,966	2,152,975	216
Homo sapiens	Agencourt human fosmid library 9	ABC9	fosmid		1,065,503	2,084,892	789

Filter by Organism (F)
Filter Organisms: [_____] [Search] [Clear]

Filter by Vector
BAC (441)
fosmid (79)
cosmid (43)
plasmid (24)
phagemid (22)
See more...
Source: NCBI

Filter by Distributor

Filter by Library Content
Whole Genome

Clone DB: Cell-Based Library Browser

This browser provides a listing of cell-based clone libraries with records in Clone DB. Data filters are provided to assist with navigation of the table.

- **FAQ**: Frequently asked questions about this library browser
- Data for murine cell-based libraries provided by MGI

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Organism	Library Type	Library Name	Allele Type	Library Group Abbreviation	Creator	Total clones	Total sequences
Mus musculus	gene_trap	Lexicon Genetics Gene Trap Library Lex-1 129S5/SvEvBrd	Gene trapped	LEX	Lexicon Genetics	198,902	198,902
Mus musculus	gene_trap	TIGM gene trap Library Lex3.13 C57BL/6N VICTR76	Gene trapped	IGTC	TIGM	184,325	277,208

Filter by Library Type (H)
gene_targeting (165)
gene_trap (163)
Source: NCBI

Filter by Allele Type
Gene trapped (163)
Targeted (Floxed/Frt) (80)
Targeted (Reporter) (71)
Targeted (knock-out) (14)
Source: NCBI

Filter by Group

Filter by Creator

Searching for Clones

Searching for clones with custom text can be done using the query box and the Search button (**A**) at the top of the Clone DB homepage. Clinking the "Help" link (**B**) opens an online document, providing more details on how to use this database.

Clicking the "Advanced" link (**C**) opens the "Clone Advanced Search Builder" page (right), which allows for interactive examination of the indexing fields (**D**) and terms indexed under them through the "Show index list" link (**E**).

Selected query terms are automatically entered in the query box (**F**). Clicking the "Add to history" link (**G**) previews the search result by adding an entry in the "History" section. Clicking the "Edit" link (**H**) unlocks the query box so custom terms such as a search history (#9) can be added.
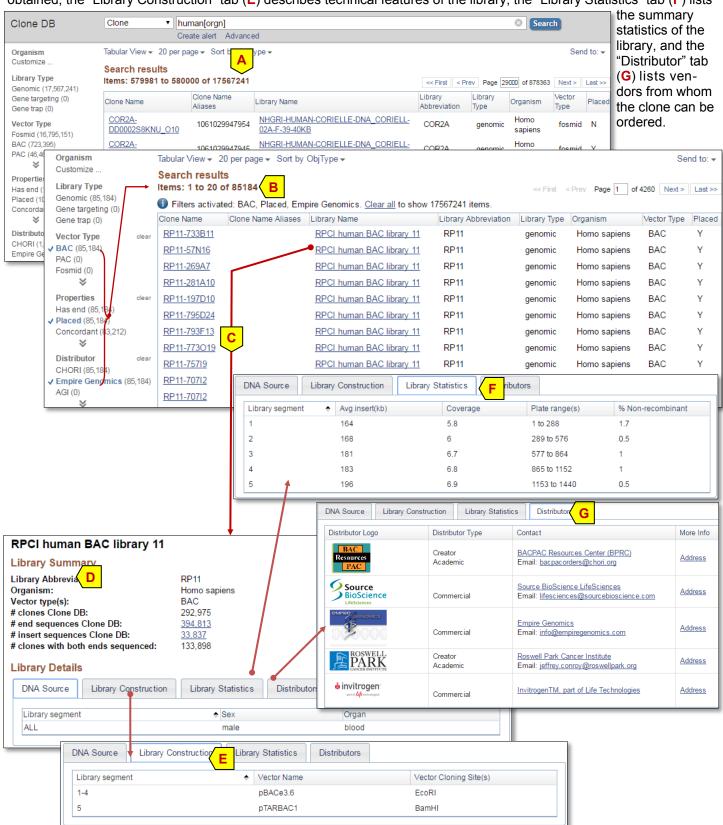
Displaying the Search Results

A search result is displayed in "Tabular View" (below), which lists the clone name, the source library, library type, vector type, and mapping status (**H**). The display format, number of records displayed, and sorting order can be customized using pull-down menus (**I**) at the top. Filters (**J**) in the left-hand column of a search result can quickly narrow down the retrieved list to clones to those satisfying the selected criteria.

Detailed Library Record View

Searching with "human[orgn]" retrieve a long list of clones (**A**). Using filters in the left hand column, the list can be reduced to a specific subset of interest. The example (**B**) is from filtering for bac clone with genome placement, from a selected provider (Empire Genomics). Clicking a library name in the "Library name" column opens a detailed display for that library (**C**), which provides a summary of the displayed library as well as other technical details in tabular format under different tabs. For example, the "DNA Source" tab (**D**) provides details about the organism from which the DNA was obtained, the "Library Construction" tab (**E**) describes technical features of the library, the "Library Statistics" tab (**F**) lists the summary statistics of the library, and the "Distributor" tab (**G**) lists vendors from whom the clone can be ordered.

Clone DB

Clone | human[orgn] [Search]
Create alert   Advanced

Search results
Items: 579981 to 580000 of 17567241

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Clone Name	Clone Name Aliases	Library Name	Library Abbreviation	Library Type	Organism	Vector Type	Placed
COR2A-DD0002S8KNU_O10	1061029947954	NHGRI-HUMAN-CORIELLE-DNA_CORIELL-02A-F-39-40KB	COR2A	genomic	Homo sapiens	fosmid	N
COR2A-	1061029947945	NHGRI-HUMAN-CORIELLE-DNA_CORIELL-	COR2A	genomic	Homo	fosmid	Y

Organism
Customize ...

Library Type
Genomic (17,567,241)
Gene targeting (0)
Gene trap (0)

Vector Type
Fosmid (16,795,151)
BAC (723,395)
PAC (46,4...

Properties
Has end (...)
Placed (10...)
Concordan...

Distributor
CHORI (1,...)
Empire Ge...

(B)

Search results
Items: 1 to 20 of 85184

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ℹ Filters activated: BAC, Placed, Empire Genomics. Clear all to show 17567241 items.

Clone Name	Clone Name Aliases	Library Name	Library Abbreviation	Library Type	Organism	Vector Type	Placed
RP11-733B11		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-57N16		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-269A7		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-281A10		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-197D10		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-795D24		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-793F13		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-773O19		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-757I9		RPCI human BAC library 11	RP11	genomic	Homo sapiens	BAC	Y
RP11-707I2							
RP11-707I2							

Organism
Customize ...

Library Type
Genomic (85,184)
Gene targeting (0)
Gene trap (0)

Vector Type   clear
✔ BAC (85,184)
PAC (0)
Fosmid (0)

Properties   clear
Has end (85,184)
✔ Placed (85,184)
Concordant (83,212)

Distributor   clear
CHORI (85,184)
✔ Empire Genomics (85,184)
AGI (0)

Library Statistics (F)

Library segment	Avg insert(kb)	Coverage	Plate range(s)	% Non-recombinant
1	164	5.8	1 to 288	1.7
2	168	6	289 to 576	0.5
3	181	6.7	577 to 864	1
4	183	6.8	865 to 1152	1
5	196	6.9	1153 to 1440	0.5

Distributor (G)

Distributor Logo	Distributor Type	Contact	More Info
BAC Resources PAC	Creator Academic	BACPAC Resources Center (BPRC) Email: bacpacorders@chori.org	Address
Source BioScience LifeSciences	Commercial	Source BioScience LifeSciences Email: lifesciences@sourcebioscience.com	Address
empire GENOMICS	Commercial	Empire Genomics Email: info@empiregenomics.com	Address
ROSWELL PARK CANCER INSTITUTE	Creator Academic	Roswell Park Cancer Institute Email: jeffrey.conroy@roswellpark.org	Address
invitrogen part of life technologies	Commercial	InvitrogenTM, part of Life Technologies	Address

RPCI human BAC library 11

Library Summary

Library Abbreviation: (D) RP11
Organism: Homo sapiens
Vector type(s): BAC
 # clones Clone DB: 292,975
 # end sequences Clone DB: 394,813
 # insert sequences Clone DB: 33,837
 # clones with both ends sequenced: 133,898

Library Details

DNA Source (D)

Library segment	Sex	Organ
ALL	male	blood

Library Construction (E)

Library segment	Vector Name	Vector Cloning Site(s)
1-4	pBACe3.6	EcoRI
5	pTARBAC1	BamHI

Detailed Genomic Clone Record View

A clone's utility as a research reagent is greatly improved when its genomic location is known. Clone DB maps genomic clones to RefSeq assemblies annotated via the NCBI annotation pipeline. This subset of clones can be retrieved using a field-limited term of "placed" [prop] as shown in the search example (**A**), which also uses a gene symbol to further narrow the scope of the search.

Clicking the clone name (**B**) opens the individual clone record, which provides a summary of important features along with an ideogram showing the clone's genomic location (**C**).

The "Genome View" tab (**D**) graphically displays the genomic annotation of the region, to which the clone is mapped. The clone mapping details are given below (**E**), with the specific clone highlighted. Hovering over a clone opens a popup (**F**) to provide additional technical details. This interactive display is based on the Graphical Sequence Viewer [1,2].

Other tabs provide additional details: the "Clone Placements" tab (**G**) lists clone mapping in text format, the "Associated Sequences" tab (**H**) lists relevant GenBank entries for the clone, and the "Distributors" tab (**I**) lists the vendors for this clone with the vendors' contact information given in the linked page.

References

1. Sequence Viewer online Help   https://www.ncbi.nlm.nih.gov/tools/sviewer/
2. Sequence Viewer factsheet   https://ftp.ncbi.nlm.nih.gov/pub/factsheets/Factsheet_Graphical_SV.pdf